2. Arthur

Program Name: Arthur.java **Input File: arthur.dat**

A Pythagorean triple consists of three positive integers *a*, *b*, and *c*, such that $a^2 + b^2 = c^2$ given that $a + b \leq c$. For example, $a = 3$, $b = 4$, and $c = 5$ is an example of a Pythagorean triple. This is true because $3^2 + 4^2 = 5^2 = 25$. A triangle whose sides form a Pythagorean triple is called a Pythagorean triangle, and is guaranteed to be a right triangle. Arthur needs your help in determining if three, unsorted integers do in fact form a Pythagorean triple.

Input: Input begins with an integer N (1 <= N <= 10), the number of different test cases. Each of the following N lines will contain three, unsorted integers guaranteed to be greater than 1 and less than 100.

Sample Output: For each test case, you are to output the three integers in sorted order, formatted as shown in the sample output, and whether the list is a Pythagorean triple or not followed by a period.

Sample Input:

```
6
3 4 5
5 13 12
3 2 1
6 10 8
31 480 481
85 76 36
```

Sample Output:

```
3, 4, 5 is a Pythagorean triple.
5, 12, 13 is a Pythagorean triple.
1, 2, 3 is not a Pythagorean triple.
6, 8, 10 is a Pythagorean triple.
31, 480, 481 is a Pythagorean triple.
36, 76, 85 is not a Pythagorean triple.
```